BOQ Item No	Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
7	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.									
	Qty vide Pre measurement sheet page no . 11 to 11									
							Total		**1.60**	**Cum**
8	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work									
	Connecting Road 2nd cross road to 1st Cross Road									
	LHS									
	0.00	25.70		1	18.50			0.75		13.88
	31.70	53.70		1	14.80			0.75		11.10
	RHS									
	0.00	25.90		1	19.30			0.75		14.48
	31.30	52.70		1	15.40			0.75		11.55
	1st Cross Road									
	LHS									
	0.00	30.00		1	28.80			0.75		21.60
	41.70	57.80		1	14.90			0.75		11.18
	RHS									
	0.00	30.00		1	28.20			0.75		21.15
	41.70	67.50		1	24.00			0.75		18.00
	1st Cross Road (Vinayaka Vidya Kendra School)									
	LHS									
	0.00	13.00		1	13.00			0.75		9.75
	13.00	23.00		1	10.00			0.75		7.50
	23.00	32.00		1	0.00			0.75		0.00
	32.00	47.10		1	15.10			0.75		11.33

Assistant Executive Engineer
Banjaranapura Sub-Division
KRIDL, BBMP, Bangalore

Contractor

Assistant Engineer(Project) 30/3/19.

Assistant Executive Engineer
Project Division, Yelahanka.
30/3/2019

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	4th Main Road (Near Sai Baba Temple)										
	LHS										
	0.00	28.70		1	28.70			0.90		25.83	
	28.70	39.50		1	10.80			0.90		9.72	
	39.50	55.50		1	16.00			0.90		14.40	
	55.50	82.30		1	26.80			0.90		24.12	
								Total		**225.57**	**Sqm**
								Limited To BOQ Qty		**223.50**	**Sqm**
9	Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)										
	Cross Road/Culverts										
	3rd Cross Road										
	RHS										
	26.00	32.10		1	6.10			1.80		10.98	
	58.20	64.50		1	6.30			1.80		11.34	
	Connecting Road 2nd cross road to 1st Cross Road										
	RHS										
	25.90	31.30		1.00	5.40			1.80		9.72	
								Total		**32.04**	**Sqm`**
10	Providing granite slabs of selected quality roughly dressed havinf a size of 10 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.										
	Connecting Road 2nd cross road to 1st Cross Road										
	LHS										
	0.00	25.70		1.00	7.20			0.75		5.40	
	31.70	53.70		1.00	7.20			0.75		5.40	
	RHS										
	0.00	25.90		1.00	6.60			0.75		4.95	
	31.30	52.70		1.00	6.00			0.75		4.50	
	1st Cross Road										
	LHS										
	0.00	30.00		1.00	1.20			0.75		0.90	
	41.70	57.80		1.00	1.20			0.75		0.90	

Assistant Executive Engineer
Byatarayanapura Sub-Division
Contractor KRIDL, BBMP, Bangalore

Assistant Engineer(Project) 30/3/19

Assistant Executive Engineer
Project Division, Yelahanka
30/3/2019

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
	RHS										
	0.00	30.00		1.00	1.80			0.75		1.35	
	41.70	67.50		1.00	1.80			0.75		1.35	
	1st Cross Road (Vinayaka Vidya Kendra School)										
	LHS										
	23.00	32.00		1.00	9.00			0.75		6.75	
								Total		**31.50**	**Sqm`**
11	KSRRB M200-12.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means :B. Cement Concrete Grade M-15 & M-20. MORTH										
	Qty vide Pre measurement sheet page no . 12 to 13										
								Total		**129.37**	**Cum**
								Limited To BOQ Qty		**129.01**	
12	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH										
	Qty vide Pre measurement sheet page no . 24										
								Total		**147.68**	**cum**
								Limited BOQ Qty		**146.75**	

Assistant Executive Engineer
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KRIDL, BBMP, Bangalore
Contractor

Assistant Engineer(Project) 30/3/19.

Assistant Executive Engineer
Project Division, Yelahanka.
30/3/2019

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
13	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M20 (at 300Kg per cum coarse aggregate @ 0.64cum and fine aggregate @ 0.43cum)										
	Concrete Road										
	2nd Cross Road (Sai Baba Temple Back Side RD)										
	0.00	15.00		1.00	15.00	5.30	5.30	5.30	0.15	11.93	
	15.00	30.00		1.00	15.00	5.30	5.20	5.20	0.15	11.70	
	30.00	45.00		1.00	15.00	5.20	5.50	5.35	0.15	12.04	
	45.00	60.00		1.00	15.00	5.50	5.45	5.48	0.15	12.32	
	60.00	61.20		1.00	1.20	5.40	5.00	5.20	0.15	0.94	
	1st Cross Road										
	0.00	15.00		1.00	15.00	4.55	4.55	4.55	0.15	10.24	
	15.00	25.00		1.00	10.00	4.50	4.50	5.20	0.15	7.80	
	Connecting Road 2nd cross road to 1st Cross Road										
	0.00	15.00		1.00	15.00	4.60	4.50	4.55	0.15	10.24	
	15.00	30.00		1.00	15.00	4.50	4.30	4.40	0.15	9.90	
	30.00	41.00		1.00	11.00	4.20	4.20	4.20	0.15	6.93	
								Total		**94.02**	**cum**
								Limited BOQ Qty		**93.47**	

checked

Assistant Executive Engineer
Byatarayanapura Sub-Division
KRIDL, BBMP, Bangalore
Contractor

Assistant Engineer(Project) 30/3/19

Assistant Executive Engineer
Project Division, Yelahanka.
30/3/2019

BOQ Item No	Description / Chainage		Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
14	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.										
	Concrete Road										
	2nd Cross Road (Sai Baba Temple Back Side RD)										
	0.00	15.00		1.00	15.00	5.30	5.30	5.30		79.50	
	15.00	30.00		1.00	15.00	5.30	5.20	5.20		78.00	
	30.00	45.00		1.00	15.00	5.20	5.50	5.35		80.25	
	45.00	60.00		1.00	15.00	5.50	5.45	5.48		82.13	
	60.00	61.20		1.00	1.20	5.40	5.00	5.20		6.24	
	1st Cross Road										
	0.00	15.00		1.00	15.00	4.55	4.55	4.55		68.25	
	15.00	25.00		1.00	10.00	4.50	4.50	5.20		52.00	
	Connecting Road 2nd cross road to 1st Cross Road										
	0.00	15.00		1.00	15.00	4.60	4.50	4.55		68.25	
	15.00	30.00		1.00	15.00	4.50	4.30	4.40		66.00	
	30.00	41.00		1.00	11.00	4.20	4.20	4.20		46.20	
								Total		**626.82**	**Sqm**
								Limited BOQ Qty		**623.16**	
15	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH										
	Santitary Work										
	Qty vide Pre measurement sheet page no . 25										
											Cum.
								Total		**53.69**	**Cum.**

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Contractor

30/3/19
Assistant Engineer(Project)

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30/3/2019

BOQ Item No	Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
16	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN ALL KINDS OF SOIL MIXED WITH BOULDERS of 30 cms size, etc. for: Pipes of all dia. for depth upto 2.0 M in all types of soils Note : If any shoring and strutting, will be paid separately									
	Qty vide Pre measurement sheet page no .14									
								Total	410.27	Rmt. Cum
17	Supplying, lowering, laying, jointing, testing and commissioning of Glazed Stone Ware Pipes of following dia, conforming to IS 651:1992, IS 4127 with latest amendments, including conveying to work site, caulking with hemp dipped in tar and jointing with CM 1:1.5 using OPC, perfect linking and curing for 10 days and testing with water etc. with all lead, lifts and as per Technical Specifications. The cost to include the cost of all jointing materials, necessary survey works for laying of sewer lines etc. complete. The contractor will make own arrangements for procuring water for testing. 230 mm dia. pipes									
	Qty vide Pre measurement sheet page no . 15									
								Total	238.60	Rmt
18	Labour charges for laying and jointing glazed stone ware pipes of 0.6m length and of specified dia., of tested quality conforming to IS 651 of 1965 including caulking with hemp yarn, jointing with CM 1:2 and testing with water etc. complete for: (Rate to include cost of jointing materials and transportation of pipes from store work site but excluding the cost of earth work) - Glazed Stone Ware pipe of 230 mm dia									
	Qty vide Pre measurement sheet page no . 16									
								Total	238.60	Cum

Assistant Executive Engineer
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KRIDL, BBMP, Bangalore
Contractor

Assistant Engineer(Project) 30/03/15

Assistant Executive Engineer
Project Division, Yelahanka
30/03/2015

BOQ Item No	Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
19	Supplying lowering laying, jointing, testing and commissioning of following diameters glazed stone ware pipes, conforming to IS 651:1992, (with 5th revision) in all respects jointing with EPDM rubber rings (seals according to EN 681 & ASPM 425) The rubber seals joints pipe will have groves in interior of socket and exterior of the spigot. The rubber gasket shall be prefixed at the factory by the manufacturer rigidly with approved glue to have leak proof joint including conveying of pipe to work site and rolling and lowering into trenches, laying true to line, level and perfect linking at joints testing and commissioning including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of GSW pipes and specials, with rubber gaskets conforming to EN 681 and ASTM C-425 including cleaning the socket and spygot with soap solution and applying talcum powder for detecting crack, then applying glue and before inserting of rubber gaskets, jacking and fixing in perfect condition including the cost of soap solution, talcum powder and glue etc. and giving necessary hydraulic test to the required pressure of water head with all lead and lifts including costing of jointing materials and all necessary survey works for laying of sewers etc., and disposal of debris as directed etc., complete. (Contractor will make his own arrangements for procuring for testing) with Rubber ring gasket joints									
	Qty vide Pre measurement sheet page no .17									
										Nos
							Total		80.00	

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KRIDL, BBMP, Bangalore
Contractor

30/3/19
Assistant Engineer(Project)

Assistant Executive Engineer
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30/3/2015

BOQ Item No	Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
20	Refilling pipeline and foundation with selected trenches available earth form trench excavation and foundation inlcuding 5 watering, consolidation in layers of 15cms., thickness including disposing off the surplus earth with all leads & lifts									
	Qty vide Pre measurement sheet page no . 22									
							Total		346.33	Cum
21	Dismantling the damaged or collapsed manhole of 4" dia conical in shape and reconstructing the same with machine made wire 6 brick in CM (1:4) as per design and specification of new cut manhole 4" dia with old frame and cover excluding bed concrete 13.6									
	Qty vide Pre measurement sheet page no . 18								3.00	
							Total		3.00	No's
22	Providing and constructing "WIRE CUT BRICK MANHOLE CHAMBERS" using suplhate resistant cement, coNickel in shape at top, with CC 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15M alround the chamber. Construct Brick masonry in CM 1:4, 340 mm thick, with wirecut bricks of approved quality, plaster inside and out side with CM 1:3, 12 mm thick, except for the coNickel surface outside where the plaster thickness shall be 20 mm. Slope inside to be 1:6 in the concrete towards central drain and finished smooth. Fixing of pipes in CC 1:2:4 with graded metal of 20 mm and down size. Supplying and fixing SFRC manhole frame and cover conforming to IS:12592 with latest amendment, in CC 1:2:4. Supplying and fixing footsteps made of 12 mm dia. steel bars (Fe-415) with 3 mm thick plastic encapsulation (IS-10910). The footsteps shall be fixed 30cms apart and on CC block embedded to masonry wall. The whole works include excavation in all types of soils, watering, curing, barricading, danger lighting, pouring tar over MH frame and cover, cost of tar, shoring, strutting, de-watering, engraving manhole number with flow direction on the inner coNickel surface etc. as per the drawing etc. as per technical specifications and for the following diameters and depth etc. for:. (inclusive of earthwork for all types of soil)									
	1.2m Depth Manhole									
	Qty vide Pre measurement sheet page no . 19									
							Total		3.00	No's

Assistant Executive Engineer
Byatarayanapura Sub-Division
Contractor KRIDL, BBMP, Bangalore

Assistant Engineer(Project) 30/3/19

Assistant Executive Engineer
Project Division, Yelahanka
30/3/2019

BOQ Item No	Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
23	Providing and constructing "WIRE CUT BRICK MANHOLE CHAMBERS" using suplhate resistant cement, coNickel in shape at top, with CC 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15M alround the chamber. Construct Brick masonry in CM 1:4, 340 mm thick, with wirecut bricks of approved quality, plaster inside and out side with CM 1:3, 12 mm thick, except for the coNickel surface outside where the plaster thickness shall be 20 mm. Slope inside to be 1:6 in the concrete towards central drain and finished smooth. Fixing of pipes in CC 1:2:4 with graded metal of 20 mm and down size. Supplying and fixing SFRC manhole frame and cover conforming to IS:12592 with latest amendment, in CC 1:2:4. Supplying and fixing footsteps made of 12 mm dia. steel bars (Fe-415) with 3 mm thick plastic encapsulation (IS-10910). The footsteps shall be fixed 30cms apart and on CC block embedded to masonry wall. The whole works include excavation in all types of soils, watering, curing, barricading, danger lighting, pouring tar over MH frame and cover, cost of tar, shoring, strutting, de-watering, engraving manhole number with flow direction on the inner coNickel surface etc. as per the drawing etc. as per technical specifications and for the following diameters and depth etc. for:. (inclusive of earthwork for all types of soil)									
	1.4m Depth Manhole									
	Qty vide Pre measurement sheet page no . 20								3.00	
							Total		3.00	No's

Assistant Executive Engineer
Byatarayanapura Sub-Division
Contractor GRIDL, BBMP, Bangalore

Assistant Engineer(Project) 30/3/15.

Assistant Executive Engineer
Project Division, Yelahanka.
30/3/2015

BOQ Item No	Description Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
24	Providing and constructing "WIRE CUT BRICK MANHOLE CHAMBERS" using suplhate resistant cement, coNickel in shape at top, with CC 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15M alround the chamber. Construct Brick masonry in CM 1:4, 340 mm thick, with wirecut bricks of approved quality, plaster inside and out side with CM 1:3, 12 mm thick, except for the coNickel surface outside where the plaster thickness shall be 20 mm. Slope inside to be 1:6 in the concrete towards central drain and finished smooth. Fixing of pipes in CC 1:2:4 with graded metal of 20 mm and down size. Supplying and fixing SFRC manhole frame and cover conforming to IS:12592 with latest amendment, in CC 1:2:4. Supplying and fixing footsteps made of 12 mm dia. steel bars (Fe-415) with 3 mm thick plastic encapsulation (IS-10910). The footsteps shall be fixed 30cms apart and on CC block embedded to masonry wall. The whole works include excavation in all types of soils, watering, curing, barricading, danger lighting, pouring tar over MH frame and cover, cost of tar, shoring, strutting, de-watering, engraving manhole number with flow direction on the inner coNickel surface etc. as per the drawing etc. as per technical specifications and for the following diameters and depth etc. for:. (inclusive of earthwork for all types of soil)									
	1.6m Depth Manhole									
	Qty vide Pre measurement sheet page no . 21								1.00	
							Total		1.00	No's

Assistant Executive Engineer
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KRIDL, BBMP, Bangalore
Contractor

30/3/19
Assistant Engineer(Project)

Assistant Executive Engineer
Project Division, Yelahanka.
30/3/2019

BOQ Item No	Description / Chainage	Side	Nos	L	B1	B2	Avg width	Depth	Quantity	Remarks
25	Disposong off the excess excavated earth of all type up to a distance mentioned Every Km beyond 5 KM 8 Considering 10 Km below by vehicle including loading unloading with all lifts labour HOM of machinery etc., complete									
	Qty vide Pre measurement sheet page no . 26									
							Total		63.95	Cum
26	Hire Charges for 2HP dewatering pump to bail out water at leaking pits inclusive of hire charges etc, complete Rs.1300/- per day of 8hours shift per day									
	Qty vide Pre measurement sheet page no .23								5.00	
							Total		5.00	Days

Assistant Executive Engineer
Byatarayanapura Sub-Division
KRIDL, BBMP, Bangalore

Assistant Engineer(Project)
30/03/19.

Assistant Executive Engineer
Project Division, Yelahanka.
30/3/2019

Bruhat Bengaluru Mahanagara Palike

Yalahanka Project Division

Name of Agency :-M/s KRIDL

Bill No :- 1st and Final Bill

Name Of work : - Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli

Abstract Bill

BOQ Item No	Description / Chainage	Units	Nos	L(m)	B(m)	D(m)	Quantity	Rate	Amount
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the								
		cum				Total	278.94	220.4	61479.37
2	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 with all lead and lift , loading and unloading and allother incidental charges								
		cum				Total	177.67	5505.64	978167.79
3	KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-								
		sqm				Total	691.60	379.48	262448.37
4	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of Design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460 cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reafirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM of machinery, curing, complete but								
		cum				Total	100.22	5998.54	601170.68
5	KSRB - 4.9.2: Providing TMT steel Fe500 reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the								
		MT				Total Payable qty	5.53	75223.96	416234.86

Assistant Executive Engineer
Byatarayanapura Sub-Division
Consultant KRIDL, BBMP, Bangalore

Assistant Engineer 20/3/15

Assistant Executive Engineer
20/3/2015

BOQ Item No	Description / Chainage	Units	Nos	L(m)	B(m)	D(m)	Quantity	Rate	Amount
6	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.25, I.No.5.6 of PW, P&IWTD S.R 2018-19)								
		Cum			Total		9.61	4871.76	46827.36
7	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.13, I.No.4.6 of PW,P&IWTD S.R 2018-19)								
		Cum			Total		1.60	5747.32	9207.21
8	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work								
		Sqm			Total Payable qty		223.50	2111.00	471808.50
9	Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
		Sqm`			Total		32.04	5111.00	163756.44
10	Providing granite slabs of selected quality roughly dressed havinf a size of 10 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete. (P.No. 27, I.No. 5.31.2 of PWDSR 2018-19)								
		Sqm`			Total		31.50	966.72	30451.68
11	KSRRB M200-12.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means :B. Cement Concrete Grade M-15 & M-								
		Cum			Total Payable qty		129.01	590.42	76167.72
12	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2018-19)								
		cum			Total Payable qty		146.75	151.66	22256.03

Consultant

Assistant Executive Engineer
Byatarayanapura Sub-Division
KRIDL, BBMP, Bangalore

Assistant Engineer 30/3/18

Assistant Executive Engineer
30/3/2018

BOQ Item No	Description / Chainage	Units	Nos	L(m)	B(m)	D(m)	Quantity	Rate	Amount
13	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per								
		cum				Total Payable qty	93.47	5128.28	479360.84
14	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.174, I.No.22.7 of PW, P&IWTD SR 2018-19)								
						Total Payable qty	623.16	72.08	44917.37
15	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406								
		Rmt				Total	53.69	2001.28	107438.72
16	EXCAVATING FOR PIPE LINE TRENCHES OF REQUIRED WIDTH by mechanical / & manual means including dressing sides, ramming of bottoms, providing barricading, danger lighting, shoring, strutting, dewatering, etc. IN ALL KINDS OF SOIL MIXED WITH BOULDERS of 30 cms size, etc. for: Pipes of all dia. for depth upto 2.0 M in all types of soils Note : If any shoring and strutting, will be paid separately (BWSSB SR 17-18, P.51, I No.1.1-A050A)								
		Cum				Total	410.27	167.00	68515.76
17	Supplying, lowering, laying, jointing, testing and commissioning of Glazed Stone Ware Pipes of following dia, conforming to IS 651:1992, IS 4127 with latest amendments, including conveying to work site, caulking with hemp dipped in tar and jointing with CM 1:1.5 using OPC, perfect linking and curing for 10 days and testing with water etc. with all lead, lifts and as per Technical Specifications. The cost to include the cost of all jointing materials, necessary survey works for laying of sewer lines etc. complete. The contractor will make								
		Rmt				Total	238.60	467.00	111426.20
18	Labour charges for laying and jointing glazed stone ware pipes of 0.6m length and of specified dia., of tested quality conforming to IS 651 of 1965 including caulking with hemp yarn, jointing with CM 1:2 and testing with water etc. complete for: (Rate to include cost of jointing materials and transportation of pipes from store work site but excluding the cost of earth work) - Glazed Stone Ware pipe of 230 mm dia (P.No 159 I .No.7.3 BWSSB 2017-18)								
		Cum				Total	238.60	108.00	25768.80

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Assistant Executive Engineer
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BOQ Item No	Description / Chainage	Units	Nos	L(m)	B(m)	D(m)	Quantity	Rate	Amount
19	Supplying lowering laying, jointing, testing and commissioning of following diameters glazed stone ware pipes, conforming to IS 651:1992, (with 5th revision) in all respects jointing with EPDM rubber rings (seals according to EN 681 & ASPM 425) The rubber seals joints pipe will have groves in interior of socket and exterior of the spigot. The rubber gasket shall be prefixed at the factory by the manufacturer rigidly with approved glue to have leak proof joint including conveying of pipe to work site and rolling and lowering into trenches, laying true to line, level and perfect linking at joints testing and commissioning including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of GSW pipes and specials, with rubber gaskets conforming to EN 681 and ASTM C-425 including cleaning the socket and spygot with soap solution and applying talcum powder for detecting crack, then applying glue and before inserting of rubber gaskets, jacking and fixing in perfect condition including the cost of soap solution, talcum powder and glue etc. and giving necessary hydraulic test to the required pressure of water head with all lead and lifts including costing of jointing materials and all necessary survey works for laying of sewers etc., and disposal of debris as directed etc., complete. (Contractor will make his own arrangements for procuring for testing) with Rubber ring gasket joints (BWSSB SR 2017-18, P-158 I-4.1, T040A)								
		Sqm				Total	80.00	241.00	19280.00
20	Refilling pipeline and foundation with selected trenches available earth form trench excavation and foundation inlcuding 5 watering, consolidation in layers of 15cms., thickness including disposing off the surplus earth with all leads & lifts.(BWSSB SR 2016-17, P-9 I-2)								
		Cum				Total	346.33	62.00	21472.18
21	Dismantling the damaged or collapsed manhole of 4" dia conical in shape and reconstructing the same with machine made wire 6 brick in CM (1:4) as per design and specification of new cut manhole 4" dia with old frame and cover excluding bed concrete 13.6 (BWSSB SR 2016-17, P-97, I-92 MTR DEPTH)								
		No's				Total	3.00	7358.00	22074.00
22	Providing and constructing "WIRE CUT BRICK MANHOLE CHAMBERS" using suplhate resistant cement, coNickel in shape at top, with CC 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15M alround the chamber. Construct Brick masonry in CM 1:4, 340 mm thick, with wirecut bricks of approved quality, plaster inside and out side with CM 1:3, 12 mm thick, except for the coNickel surface outside where the plaster thickness shall be 20 mm. Slope inside to be 1:6 in the concrete towards central drain and finished smooth. Fixing of pipes in CC 1:2:4 with graded metal of 20 mm and down size. Supplying and fixing SFRC manhole frame and cover conforming to IS:12592 with latest amendment, in CC 1:2:4. Supplying and fixing footsteps made of 12 mm dia. steel bars (Fe-415) with 3 mm thick plastic encapsulation (IS-10910). The footsteps shall be fixed 30cms apart and on CC block embedded to masonry wall. The whole works include excavation in all types of soils, watering, curing, barricading, danger lighting, pouring tar over MH frame and cover, cost of tar, shoring, strutting, de-watering, engraving manhole number with flow direction on the inner coNickel surface etc. as per the drawing etc. as per technical								

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Assistant Engineer 30/3/15

Assistant Executive Engineer

30/3/2015

BOQ Item No	Description / Chainage	Units	Nos	L(m)	B(m)	D(m)	Quantity	Rate	Amount
		No's				Total	3.00	20697.00	62091.00
23	Providing and constructing "WIRE CUT BRICK MANHOLE CHAMBERS" using suplhate resistant cement, coNickel in shape at top, with CC 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15M alround the chamber. Construct Brick masonry in CM 1:4, 340 mm thick, with wirecut bricks of approved quality, plaster inside and out side with CM 1:3, 12 mm thick, except for the coNickel surface outside where the plaster thickness shall be 20 mm. Slope inside to be 1:6 in the concrete towards central drain and finished smooth. Fixing of pipes in CC 1:2:4 with graded metal of 20 mm and down size. Supplying and fixing SFRC manhole frame and cover conforming to IS:12592 with latest amendment, in CC 1:2:4. Supplying and fixing footsteps made of 12 mm dia. steel bars (Fe-415) with 3 mm thick plastic encapsulation (IS-10910). The footsteps shall be fixed 30cms apart and on CC block embedded to masonry wall. The whole works include excavation in all types of soils, watering, curing, barricading, danger lighting, pouring tar over MH frame and cover, cost of tar, shoring, strutting, de-watering, engraving manhole number with flow direction on the inner coNickel surface etc. as per the drawing etc. as per technical								
		No's				Total	3.00	23104.00	69312.00
24	Providing and constructing "WIRE CUT BRICK MANHOLE CHAMBERS" using suplhate resistant cement, coNickel in shape at top, with CC 1:3:6 foundation using 40 mm and down size graded metal of approved quality and with an offset of 0.15M alround the chamber. Construct Brick masonry in CM 1:4, 340 mm thick, with wirecut bricks of approved quality, plaster inside and out side with CM 1:3, 12 mm thick, except for the coNickel surface outside where the plaster thickness shall be 20 mm. Slope inside to be 1:6 in the concrete towards central drain and finished smooth. Fixing of pipes in CC 1:2:4 with graded metal of 20 mm and down size. Supplying and fixing SFRC manhole frame and cover conforming to IS:12592 with latest amendment, in CC 1:2:4. Supplying and fixing footsteps made of 12 mm dia. steel bars (Fe-415) with 3 mm thick plastic encapsulation (IS-10910). The footsteps shall be fixed 30cms apart and on CC block embedded to masonry wall. The whole works include excavation in all types of soils, watering, curing, barricading, danger lighting, pouring tar over MH frame and cover, cost of tar, shoring, strutting, de-watering, engraving manhole number with flow direction on the inner coNickel surface etc. as per the drawing etc. as per technical								
		No's				Total	1.00	25734.00	25734.00
25	Disposong off the excess excavated earth of all type up to a distance mentioned Every Km beyond 5 KM 8 Considering 10 Km below by vehicle including loading unloading with all lifts labour HOM of machinery etc., complete (BWSSB SR 2016-17, Pg-10, Item-7)								
		Cum				Total	63.95	147.00	9400.44
26	Hire Charges for 2HP dewatering pump to bail out water at leaking pits inclusive of hire charges etc, complete Rs.1300/- per day of 8hours shift per day (BWSSB SR 16-17 Sl.No-4, P-34)								
		Days				Total	5.00	1300.00	6500.00
								KPWD SR items	3771692.931
								Sub-Total	4213267.31
								12% GST	452603.15
								KRIDL Charges	168530.69
								Total	4834401.15

Assistant Executive Engineer
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Assistant Executive Engineer
30/3/2015